Amendments to the Claims:

This listing of claims will replace all prior version, and listing, of claims in the application:

Listing of Claims:

1-21. (Canceled)

22. (Previously Presented) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:

an ion-conducting solid electrolyte body;

at least one electrode situated on the ion-conducting solid electrolyte body; and

an electrode lead leading to the at least one electrode, wherein the electrode lead includes a material that possesses one of no ionic conductivity and an ionic conductivity that is significantly less than that of a material of the at least one electrode so that an internal resistance of the ion-conducting solid electrolyte body in a lead region of the sensor is significantly greater than an internal resistance of the solid electrolyte body in a measuring region of the sensor.

23. (Previously Presented) The electrochemical sensor according to claim 22, wherein:

the at least one electrode and the electrode lead are each formed from a cermet material, and

a ceramic component of the at least one electrode is different than a ceramic component of the electrode lead.

24. (Previously Presented) The electrochemical sensor according to claim 23, wherein:

the ceramic component of the electrode lead contains 5-10% by volume Al_2O_3.

25. (Previously Presented) The electrochemical sensor according to claim 23, wherein:

the ceramic component of the electrode contains 10-60% by volume ZrO_2 stabilized with Y_2O_3.

26. (Previously Presented) The electrochemical sensor according to claim 25, wherein:

the ceramic component of the electrode contains 20% by volume ZrO_2 stabilized with Y_2O_3.

27. (Previously Presented) The electrochemical sensor according to claim 25, wherein the at least one electrode includes a pore-forming material to increase a porosity of the at least one electrode.

28. (Previously Presented) The electrochemical sensor according to claim 23, wherein:

at least one of a metallic component of the at least one electrode and a metallic component of the electrode lead includes Pt.

29. (Previously Presented) The electrochemical sensor according to claim 22, further comprising:

a wedge-shaped junction region including an overlap zone and being formed between the electrode lead and the at least one electrode.

30. (Previously Presented) The electrochemical sensor according to claim 22, further comprising:

a heater; and

a layer plane in which the heater embedded in the ion-conducting solid electrolyte body is located, wherein:

at least one of the electrode lead and the at least one electrode is situated in the layer plane.

31. (Previously Presented) The electrochemical sensor according to claim 30, wherein:

the heater is made of a material that is the same as the material of the electrode lead.

32. (Previously Presented) The electrochemical sensor according to claim 22, wherein the at least one electrode includes at least one of an internal pump electrode and a

reference electrode, the internal pump electrode and the reference electrode being configured with corresponding electrode leads of a measuring cell.

33. (Previously Presented) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:

an ion-conducting solid electrolyte body;

at least one electrode situated on the ion-conducting solid electrolyte body; and

an electrode lead leading to the at least one electrode, wherein the electrode lead includes a material having a low resistance in comparison with a material of the at least one electrode so that a resistance of the electrode lead is less than a resistance of the electrode.

34. (Previously Presented) The electrochemical sensor according to claim 33, wherein:

the at least one electrode and the electrode lead are each formed from a cermet material, and

a ceramic component of the at least one electrode is different than a ceramic component of the electrode lead.

35. (Previously Presented) The electrochemical sensor according to claim 34, wherein:

the ceramic component of the electrode lead contains 5-10% by volume Al_2O_3.

36. (Previously Presented) The electrochemical sensor according to claim 34, wherein:

the ceramic component of the electrode contains 10-60% by volume ZrO_2 stabilized with Y_2O_3.

37. (Previously Presented) The electrochemical sensor according to claim 36, wherein:

the ceramic component of the electrode contains 20% by volume ZrO_2 stabilized with Y_2O_3.

38. (Previously Presented) The electrochemical sensor according to claim 36, wherein the at least one electrode includes a pore-forming material to increase a porosity of the at least one electrode.

39. (Previously Presented) The electrochemical sensor according to claim 34, wherein:

at least one of a metallic component of the at least one electrode and a metallic component of the electrode lead includes Pt.

40. (Previously Presented) The electrochemical sensor according to claim 33, further comprising:

a wedge-shaped junction region including an overlap zone and being formed between the electrode lead and the at least one electrode.

41. (Previously Presented) The electrochemical sensor according to claim 33, further comprising:

a heater; and

a layer plane in which the heater embedded in the ion-conducting solid electrolyte body is located, wherein:

at least one of the electrode lead and the at least one electrode is situated in the layer plane.

42. (Previously Presented) The electrochemical sensor according to claim 41, wherein:

the heater is made of a material that is the same as the material of the electrode lead.

43. (Previously Presented) The electrochemical sensor according to claim 33, wherein the at least one electrode includes at least one of an internal pump electrode and a reference electrode, the internal pump electrode and reference electrode being configured with corresponding electrode leads of a measuring cell.

44. (Previously Presented) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:

an ion-conducting solid electrolyte body;

at least one electrode situated on the ion-conducting solid electrolyte body; and

an electrode lead leading to the at least one electrode, wherein:

the electrode lead includes a material having a low resistance in comparison with a material of the at least one electrode so that a resistance of the electrode lead is less than a resistance of the electrode, and

the material possesses one of no ionic conductivity and an ionic conductivity that is significantly less in comparison with the material of the at least one electrode so that an internal resistance of the ion-conducting solid electrolyte body in a lead region of the sensor is significantly greater than an internal resistance of the solid electrolyte body in a measuring region of the sensor.

45. (Previously Presented) The electrochemical sensor according to claim 22, wherein a "lambda=1-ripple" is at least decreased.

46. (Previously Presented) The electrochemical sensor according to claim 22, wherein the internal resistance of the ion-conducting solid electrolyte body does not impact a temperature regulation of the electrochemical sensor.

47. (New) The electrochemical sensor according to claim 22, wherein the at least one electrode and electrode lead are formed by screen printing.

48. (New) The electrochemical sensor according to claim 33, wherein the at least one electrode and the electrode lead are formed from a cermet material, and a metallic component of the at least one electrode is different from a metallic component of the electrode lead.

49. (New) The electrochemical sensor according to claim 48, wherein the metallic component is platinum.

50. (New) The electrochemical sensor according to claim 44, further comprising:

a wedged-shaped junction region including an overlap zone and being formed between the electrode lead and the at least one electrode.

51. (New) The electrochemical sensor according to claim 50, further comprising:

a heater; and

a layer plane in which the heater embedded in the ion-conducting solid electrolyte body is located, wherein at least one of the electrode lead and the at least one electrode is arranged in the same layer plane.

52. (New) The electrochemical sensor according to claim 51, wherein the at least one electrode includes at least one of an internal pump electrode and a reference electrode, the internal pump electrode and reference electrode being configured with corresponding electrode leads of a measuring cell.